

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	Confirmation No.: 6255
MONSKI JR et al.)	
)	Art Unit: 2859
Patent No.: 7,084,629)	
)	Examiner: Fetzner, Tammy
Issued: August 1, 2006)	
)	Docket No.: MR/02-003
)	
For: PARALLEL IMAGING)	Customer No.: 21140
COMPATIBLE BIRDCAGE)	
RESONATOR)	Date: October 8, 2007

REQUEST FOR CERTIFICATE OF CORRECTION
TO CORRECT
PATENTEE'S MISTAKES

Commissioner for Patents
Certificate of Correction Branch
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

MEDRAD, Inc., assignee of U.S. Patent 7,084,629 ("629 patent") issued 1 August 2006, hereby requests that the changes noted on the attached Form-1050 be made to the referenced patent, and that an official *Certificate of Correction* be issued by the U.S. Patent and Trademark Office (USPTO) pursuant to 37 C.F.R. §1.323.

Pursuant to 37 C.F.R. §3.73, the assignee affirms that it is the sole owner of the '629 patent by virtue of a chain of assignments from the inventors to MEDRAD, Inc., the current assignee. As of today's date, all of the assignments in the chain have been

recorded with the ASSIGNMENT DIVISION OF THE USPTO. A copy of the recordals are attached hereto. Furthermore, as required by 37 C.F.R. §3.73(2)(i), the undersigned is authorized to act on behalf of the assignee.

The requested corrections are necessary to correct several mistakes, some made by the USPTO and others made by the Patentee. Given the number of mistakes made by Patentee, however, the undersigned on behalf of the assignee submits herewith the fee imposed by 35 U.S.C. 1.20(a) for correction of same.

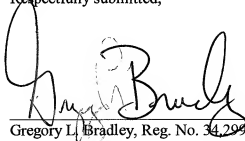
The location of the mistakes and the corrections to be made therefore are shown in the attached Form-1050, in duplicate, with at least one copy being suitable for printing. The errors occurred at the time of filing of the application for patent, and were inadvertent and made without deceptive intent. The errors are all of a clerical, typographical and/or minor character, and their correction does not require reexamination or introduce any new matter into the patent.

Assignee hereby requests that the *Certificate of Correction* be issued in due course and that the original be sent to the undersigned counsel of record for Assignee and Patentee.

Accompanying this submission is the required fee of \$100, imposed by 37 C.F.R. §1.20(a), for correction of the mistakes.

Prompt issuance of the *Certificate of Correction* is respectfully requested. If the recipient of this correspondence has any questions regarding the matters addressed herein, the recipient is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,

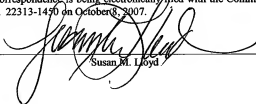


Gregory L. Bradley, Reg. No. 34,299

Date: October 8, 2007

MEDRAD, Inc.
One Medrad Drive
Indianola, PA 15051

I hereby certify that this correspondence is being electronically filed with the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 8, 2007.



Susan M. Lloyd

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,084,629

DATED : August 1, 2006

INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON THE FACE PAGE

Field (57), under "ABSTRACT", in Column 2, Lines 1-11, delete "A birdcage coil..... rings interconnecting them." and insert - - A coil for use with a magnetic resonance (MR) system includes a pair of electrically conductive rings and a plurality of rods. The rings are disposed at an opposite ends of the coil from one other, and the rods electrically interconnect the rings to form a birdcage-like structure therewith. The rods and rings are configured to produce about the birdcage-like structure a plurality of partially-overlapped primary resonant substructures, with each primary resonant substructure including two rods and a corresponding section of each of the rings interconnecting them. In this configuration, each primary resonant substructure (i) partially overlaps each of its neighboring primary resonant substructures and electrically shares therewith a region of overlap created thereby and (ii) is capable of receiving MR signals from tissue within its field of view thus enabling each primary resonant substructure to convey the MR signals received thereby via a separate port to the MR system. - -, therefor.

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,084,629

DATED : August 1, 2006

INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE SPECIFICATION

Columns 6 & 7, Lins 43-67 & 1-2, delete "In a presently preferred embodiment,..... the region of interest." and insert - - In a presently preferred embodiment, the invention provides a head coil for use with a magnetic resonance (MR) system capable of acquiring images of a region of interest using parallel imaging techniques. The head coil includes a first ring at an inferior end of the head coil, a second ring at a superior end of the head coil, and a plurality of rods electrically interconnecting the first and second rings to form a birdcage-like structure therewith. The first ring is electrically conductive and has a first diameter through which the region of interest is provided access to the head coil. The second ring is electrically conductive and has a second diameter smaller than the first diameter of the first ring. Each rod has a linear portion and a tapered portion with the linear portion being connected to the first ring and the tapered portion being connected to the second ring. The tapered portions of the rods collectively provide the head coil with a substantially homogeneous pattern of magnetic flux density in at least one of three orthogonal imaging planes of the head coil while maintaining and/or improving the signal-to-noise ratio of the head coil. The rods and rings of the head coil are configured to produce about the birdcage-like structure a plurality of partially-overlapped primary resonant substructures, with each primary resonant substructure including two rods and a corresponding section of each of the rings interconnecting them. In this configuration, each primary resonant substructure (i) partially overlaps each of its neighboring primary resonant substructures and electrically shares therewith a region of overlap created thereby and (ii) is capable of receiving magnetic resonance signals from a portion of the region of interest within its field of view thus enabling each primary resonant substructure to convey the magnetic resonance signals received thereby via a separate port to the MR system. In a broader aspect, the invention provides a coil for use with a magnetic resonance (MR) system. The coil includes a first ring at one end of the coil, a second ring at the other end of the coil, and a plurality of rods electrically interconnecting the rings to form a birdcage-like structure therewith. The first ring is electrically conductive and has a first diameter, and the second ring is electrically conductive and has a second diameter. The rods and rings of the coil are configured to produce about the birdcage-like structure a plurality of partially-overlapped primary resonant substructures, with each primary resonant substructure including two rods and a corresponding section of each of the rings interconnecting them. In this configuration, each primary resonant substructure (i) partially overlaps each of its neighboring primary resonant substructures and electrically shares therewith a region of overlap created thereby and (ii) is capable of receiving magnetic resonance signals from tissue within its field of view thus enabling each primary resonant substructure to convey the magnetic resonance signals received thereby via a separate port to the MR system.

- -, therefor.

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PATENT NO. : 7,084,629

DATED : August 1, 2006

INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE SPECIFICATION

Column 7, Lines 3-20, delete "In a related aspect, invention..... region of interest." and insert -- In an even broader aspect, the invention provides a coil for use with a magnetic resonance (MR) system. The coil includes a pair of electrically conductive rings and a plurality of rods. The rings are disposed approximately at an opposite ends of the coil from one other, and the rods electrically interconnect the rings to form a birdcage-like structure therewith. The rods and rings of the coil are configured to produce about the birdcage-like structure a plurality of partially-overlapped primary resonant substructures, with each primary resonant substructure including two rods and a corresponding section of each of the rings interconnecting them. In this configuration, each primary resonant substructure (i) partially overlaps each of its neighboring primary resonant substructures and electrically shares therewith a region of overlap created thereby and (ii) is capable of receiving magnetic resonance signals from tissue within its field of view thus enabling each primary resonant substructure to convey the magnetic resonance signals received thereby via a separate port to the MR system. --, therefor.

Column 7, Lines 21-37, delete "In a broader aspect,..... the region of interest." and insert -- In another aspect, the invention provides a coil for use with a magnetic resonance (MR) system. The coil includes a first electrically conductive end member, a second electrically conductive end member, and a plurality of rods electrically interconnecting the first and second end members to form a unitary structure therewith. The first end member is disposed approximate one end of the coil, and the second end member is disposed approximate the other end of the coil. The rods and end members are configured to produce about the unitary structure a plurality of partially-overlapped primary resonant substructures, with each primary resonant substructure including two rods and a corresponding section of each of the end members interconnecting them. In this configuration, each primary resonant substructure (i) partially overlaps its neighboring primary resonant substructure(s) and electrically shares therewith a region of overlap created thereby and (ii) is capable of receiving magnetic resonance signals from tissue within its field of view thus enabling each of the primary resonant substructures to convey the magnetic resonance signals received thereby to the MR system. --, therefor.

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CERTIFICATE OF CORRECTION

PATENT NO. : 7,084,629

DATED : August 1, 2006

INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE SPECIFICATION

Column 7, Lines 38-49, delete "In an even broader aspect, invention.....rings interconnecting them." and insert -- In a related aspect, the invention also provides a neurovascular array for use with a magnetic resonance (MR) system. The neurovascular array includes a head coil, an anterior neck coil, and a posterior cervical spine coil. The head coil includes a first ring approximate one end of the head coil, a second ring approximate the other end of the head coil, and a plurality of rods. The first ring is electrically conductive and has a first diameter, and the second ring is electrically conductive and has a second diameter. The rods electrically interconnect the first and second rings to form a birdcage-like structure therewith. The rods and rings of the head coil are configured to produce about the birdcage-like structure a plurality of partially-overlapped primary resonant substructures, with each primary resonant substructure constituting a coil element having two of the rods and a corresponding section of each of the first and second rings interconnecting them. In this configuration, each coil element of the head coil (i) partially overlaps each of its neighboring coil elements and electrically shares therewith a region of overlap created thereby and (ii) is capable of receiving magnetic resonance signals from tissue within its field of view. The anterior neck coil includes one or more of its own type of coil element, as does the posterior cervical spine coil. --, therefor.

Column 9, Line 25, delete "transnPreceive" and insert -- transmit/receive --, therefor.

Column 10, Line 48, delete "CM," and insert -- C_m --, therefor.

Column 15, Line 5, delete "CM" and insert -- C_m --, therefor.

Column 15, Line 10, delete "Signa" and insert -- Signa® --, therefor.

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,084,629
 DATED : August 1, 2006
 INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE CLAIMS

Column 16, Line 57, in Claim 1, after "second rings" insert -- of the head coil --.

Column 16, Line 64, in Claim 1, after "substructures" insert -- (i) --.

Column 16, Line 65, in Claim 1, after "substructures and" insert -- electrically shares therewith a region of overlap created thereby and (ii) --.

Column 16, Line 67, in Claim 1, after "field of view" insert -- thus enabling each of said primary resonant substructures to convey the magnetic resonance signals received thereby via a separate port to the MR system --.

Column 18, Line 4, in Claim 19, after "second rings" insert -- of the coil --.

Column 18, Line 5, in Claim 19, after "produce" insert -- about the birdcage-like structure --.

Column 18, Lines 6-7, in Claim 19, after "substructures" delete "about the birdcage-like structure".

Column 18, Line 11, in Claim 19, after "substructures" insert -- (i) --.

Column 18, Line 12, in Claim 19, after "substructures and" insert -- electrically shares therewith a region of overlap created thereby and (ii) --.

Column 18, Line 14, in Claim 19, after "field of view" insert -- thus enabling each of said primary resonant substructures to convey the magnetic resonance signals received thereby via a separate port to the MR system --.

Column 19, Line 38, in Claim 42, after "said rings" insert -- of the coil --.

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PATENT NO. : 7,084,629

DATED : August 1, 2006

INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE CLAIMS

Column 19, Line 38, in Claim 42, after "produce" insert - - about the birdcage-like structure - -.

Column 19, Line 40, in Claim 42, after "substructures" delete "about the birdcage-like structure".

Column 19, Line 44, in Claim 42, after "substructures" insert - - (i) - -.

Column 19, Line 45, in Claim 42, after "substructures and" insert - - electrically shares therewith a region of overlap created thereby and (ii) - -.

Column 19, Line 47, in Claim 42, after "field of view" insert - - thus enabling each of said primary resonant substructures to convey the magnetic resonance signals received thereby via a separate port to the MR system - -.

Column 20, Line 27, in Claim 56, delete "52" and insert - - 42 - -, therefor.

Column 20, Line 30, in Claim 57, delete "52" and insert - - 42 - -, therefor.

Column 21, Line 5, in Claim 65, after "end members" insert - - to form a unitary structure therewith - -.

Column 21, Line 7, in Claim 65, after "to yield" insert - - about the unitary structure - -.

Column 21, Line 13, in Claim 65, insert - - (i) - -, before "partially".

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PATENT NO. : 7,084,629

DATED : August 1, 2006

INVENTOR(S) : Monski, Jr., et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE CLAIMS

Column 21, Line 13, in Claim 65, after "overlaps" delete "at least one of".

Column 21, Line 14, in Claim 65, delete "substructures and" and insert - - substructure(s) and electrically shares therewith a region of overlap created thereby and (ii) - -, therefor.

Column 21, Line 16, in Claim 65, after "field of view" insert - - thus enabling each of said primary resonant substructures to convey the magnetic resonance signals received thereby to the MR system - -.

Column 22, Line 24, in Claim 74, after "second rings" insert - - of the head coil - -.

Column 22, Line 25, in Claim 74, after "produce" insert - - about the birdcage-like structure - -.

Column 22, Lines 26-27, in Claim 74, after "substructures" delete "about the birdcage-like structure".

Column 22, Line 31, in Claim 74, after "elements" insert - - (i) - -.

Column 22, Line 32, in Claim 74, after "coil elements and" insert - - electrically shares therewith a region of overlap created thereby and (ii) - -.

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JUNE 17, 2005

PTAS



102922791A

JAMES R. STEVENSON, ESQUIRE
MEDRAD, INC.
ONE MEDRAD DRIVE
INDIANOLA, PA 15051

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES DIVISION, P.O. BOX 1450, ALEXANDRIA, VA 22313

RECORDATION DATE: 01/10/2005

REEL/FRAME: 016152/0405
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: MR/02-003

ASSIGNOR:
MONSKI JR., WILLIAM J.

DOC DATE: 12/17/2004

ASSIGNOR:
ALRADADY, FAHAD

DOC DATE: 12/17/2004

ASSIGNOR:
MISIC, GEORGE J.

DOC DATE: 12/09/2004

ASSIGNEE:
MEDRAD, INC.
ONE MEDRAD DRIVE
INDIANOLA, PENNSYLVANIA 15051

RECEIVED

JUN 27 2005

SERIAL NUMBER: 10723428

FILING DATE: 11/27/2003

PATENT NUMBER:

ISSUE DATE:

TITLE: PARALLEL IMAGING COMPATIBLE BIRDCAGE RESONATOR

MEDRAD

016152/0405 PAGE 2

SHARON LATIMER, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS



01-21-2005



102922791

Doc. # No.: MR/02-003

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

Tab settings → → →

To the Honorable Commissioner of Patents: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

MONSKI Jr., William J.
ALRADADY, Fahad
MISIC, George J.

Additional names(s) of conveying party(ies) ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other

Execution Date: 12/17/2004; 12/17/2004; 12/9/2004

4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

10/723,428

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: James R. Stevenson, Esquire

Internal Address:

Street Address: MEDRAD, INC.

One Medrad Drive

City: Indianola State: PA ZIP: 15051

2. Name and address of receiving party(ies):

Name: MEDRAD, INC.

Internal Address:

Street Address: One Medrad Drive

City: Indianola State: PA ZIP: 15051

Additional name(s) & address(es) attached? ☐ Yes ☒ No

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 40.00

- ☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account
☒ Authorized to be charged to deposit account

8. Deposit account number:

13-2530

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

James R. Stevenson

Name of Person Signing

Signature

1/10/2005

Date

4

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01/19/2005 08:05:01

01 FEB 2005

ASSIGNMENT

WHEREAS, We, **William J. Monski, Jr.**, a citizen and resident of the United States of America, whose post office address is 1486 Grandview Way, Sewickley, Pennsylvania 15143; **Fahad Alradady**, a citizen and resident of the United States of America, whose post office address is 301 Belladonna Drive, Glenshaw, Pennsylvania 15116; and **George J. Misis**, a citizen and resident of the United States of America, whose post office address is 1936 Duncan Avenue, Allison Park, Pennsylvania 15101 (hereinafter collectively referred to as ASSIGNOR), have invented within the United States and own a certain invention entitled

PARALLEL IMAGING COMPATIBLE BIRDCAGE RESONATOR

which is described in an application for Letters Patent of the United States of America filed on November 27, 2003, and assigned application Serial No. 10/723,428; and

WHEREAS, Medrad, Inc., a corporation organized and existing under the laws of the State of Delaware and having a place of business at One Medrad Drive, Indianola, PA 15051 (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire interest in, to and under said invention and in, to and under Letters Patent or similar legal protection to be obtained therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that in consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries, said application for Letters Patent, and any and all issued Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, divisional, renewal, substitute or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted.

ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to ASSIGNEE.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale; and

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

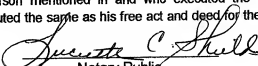
IN WITNESS WHEREOF, I have hereunto set my hand and seal this 17 day of December, 2004.



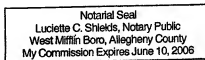
William J. Monski, Jr.

STATE OF Pennsylvania)
) ss.
COUNTY OF Allegheny)

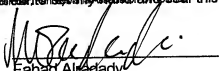
BE IT KNOWN, that on this 17th day of December, 2004, before me personally came William J. Monski, Jr., to me known to be the person mentioned in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed for the use and purposes therein mentioned.



Notary Public



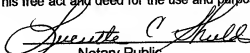
IN WITNESS WHEREOF, I have hereunto set my hand and seal this 17 day of December, 2004.



Fahad Alradady

STATE OF)
) ss.
COUNTY OF)

BE IT KNOWN, that on this 17th day of December, 2004, before me personally came Fahad Alradady, to me known to be the person mentioned in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed for the use and purposes therein mentioned.



Notary Public

